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ERD PMP 11362

Section D Categorical Exclusion (RFO/CX025-91) Determination

C M Borgstrom, Director Office of NEPA Oversight, EH-25, HQ

A copy of RFO/CX025-91, Field Activities for Geological and Ecological Characterization Within Floodplains or Wetlands, is attached for your review. This categorical exclusion (CX) was originally submitted for approval to the Office of Environmental Restoration and Waste Management in October of 1991. We have been awaiting the approval and publication of the Floodplain/Wetlands Notice of Involvement and Statement of Findings required by regulations at 10 CFR 1022 since that time. Both of those documents have now been published in the *Federal Register*, and the Wetlands Assessment has been delegated from EM to the field in this interim time, we are now resubmitting the CX which has been approved by the Rocky Flats Office Manager.

Robert M Nelson, Jr
Robert M Nelson, Jr
Manager

Attachment

cc w/Attachment
R S. Scott, EM-20
A Rampertaap, EM-453
S Nesta, EG&G
W A Moore, EG&G

CORRES CONTROL x x
TRAFFIC

Reviewed for Addressee
Corres Control RFP

10-21-92 *Cin*
DATE BY

Ref Ltr #

SECTION D DETERMINATION
CATEGORICAL EXCLUSION (CX) DETERMINATION RFO/CX025-91

Proposed Action: Field Activities for Geologic and Ecological Characterization Within Floodplains or Wetlands

Location Rocky Flats Plant, Golden, CO

Proposed by U S Department of Energy, Rocky Flats Office

Description of the Proposed Action:

Rocky Flats Plant proposes to carry out field activities to gather data to characterize the geology and ecology of the plant site within wetlands and floodplains in support of the remediation of RCRA and CERCLA sites. This work may be performed both within and outside the boundaries of operable units 1, 2, 5 and 6. The characterization work would include 1) establishing new surface water and sediment sampling stations and collecting samples, 2) collecting soil and soil gas samples, and 3) drilling new water wells and collecting groundwater samples, and 4) drilling to obtain geologic cores.

To establish new surface water and sediment sampling stations, stakes would be driven into the ground at the edge of a stream or water body. The stakes would be used as reference points so that samples can be taken from the same locations periodically. Water and sediment samples would be taken by driving or walking to the sample site and collecting up to a few pounds of sediment or a few quarts of water.

Soil and soil gas samples may be collected within floodplains from grids 38, 51, 52, 57, 81, 96, 109 and 115 shown on Figure 2 using three different methods. The first soil sampling method uses a Colorado Department of Health sampler to remove two to three tablespoons of soil from the ground surface anywhere within the grid. The second soil sampling method that would be used is backhoe excavation of soil pits nine feet long, five feet wide and four feet deep to gather samples from the soil profile within each grid. The sample pits will be refilled with the excavated earth after sampling. Sampling soil gas (Figures 3 and 8) is to be accomplished by using a hand auger to drill a one inch diameter hole 18 to 24 inches deep. A probe is inserted into the hole to sample any gases that escape from the soil.

Drilling new water wells and core holes would involve driving a truck mounted drilling rig to the locations shown on Figures 1, 3, 6, 7, 8, 9, 10, 11, 13 and 14 to drill holes four to six inches in diameter. Drilling activities that may be within the 100 year floodplain or wetlands are highlighted by heavy arrows on the figures. As a general principle, drilling in wetlands would be avoided because of the added difficulties of setting up a drill rig and drilling in saturated soils, but it may be necessary to locate one or more holes within a wetland. As holes are drilled, drill cuttings would be brought to the surface and shoveled into drums for analysis of contaminants and appropriate disposal. Drilling activity will result in the trampling of vegetation for up to 200 square feet around the drill hole.

These activities would not introduce or cause the inadvertent or uncontrolled movement of hazardous substances or non-native organisms, or adversely affect environmentally sensitive areas listed in the guidelines. Because of the nature of the proposed activities, no adverse impacts are expected to wetlands or floodplains.

Categorical Exclusion to be applied:

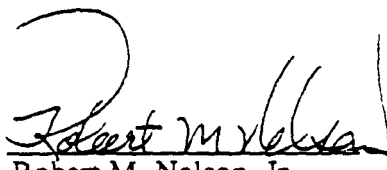
B3.1 Site characterization and environmental monitoring including siting, construction, operation and dismantlement or closing (abandonment) of characterization and monitoring devices and siting.

construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, and radar), geochemical, and engineering surveys and mapping, including the establishment of survey marks; (b) Installation and operation of field instruments, such as streamgauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools; (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants; (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities, including assessment of potential wind energy resources; (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7 (10 CFR 1021, Appendix B to Subpart D).

DOE NEPA REGULATIONS SECTION D
CATEGORICAL EXCLUSION DETERMINATION - RFO/CX025-91
Field Activities for Geologic and Ecological Characterization Within Floodplains or Wetlands

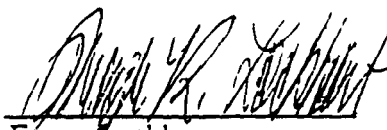
I have determined that the proposed action meets the requirements for a categorical exclusion as defined in the Section D of 10 CFR 1021. Therefore, I approve the categorical exclusion of the proposed action from further NEPA review and documentation.

Date 10/20/92

Signature 
Robert M. Nelson, Jr.
Title Manager, Rocky Flats Office

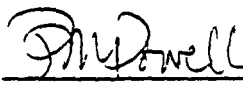
Project Sponsor

Date 10/14/92

Signature 
Frazer Lockhart
Title Director, Environmental Restoration Division

I have reviewed this determination and find that a categorical exclusion is the appropriate level of NEPA documentation.

Date October 6, 1992

Signature 
Patricia M. Powell
Title NEPA Compliance Officer

ADS number 1001, 1002, 1005, 1016 (EM)

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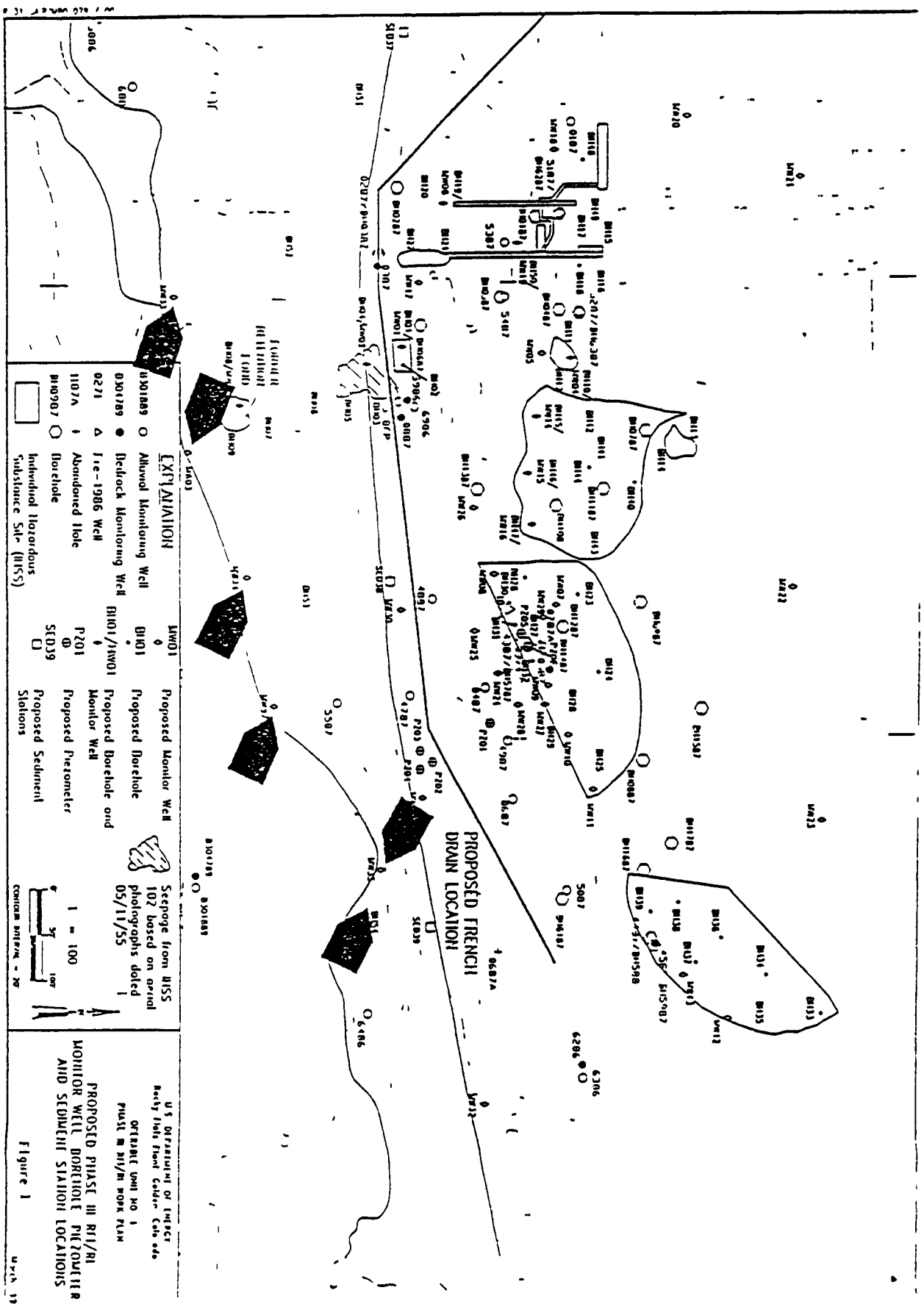


Figure 1



EXPLANATION



STREAM OR WATER FEATURE
OR
DRAINAGE CANAL
OR
DRAINAGE CANAL



10 ACRE SAMPLING PLOT LOCATED



10 ACRE SAMPLING PLOT LOCATED



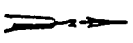
10 ACRE SAMPLING PLOT LOCATED



10 ACRE SAMPLING PLOT LOCATED

SCALE: 1:1000
SOURCE: U.S. DEPARTMENT OF AGRICULTURE, 1960

SOIL TYPE NUMBER	SERIES
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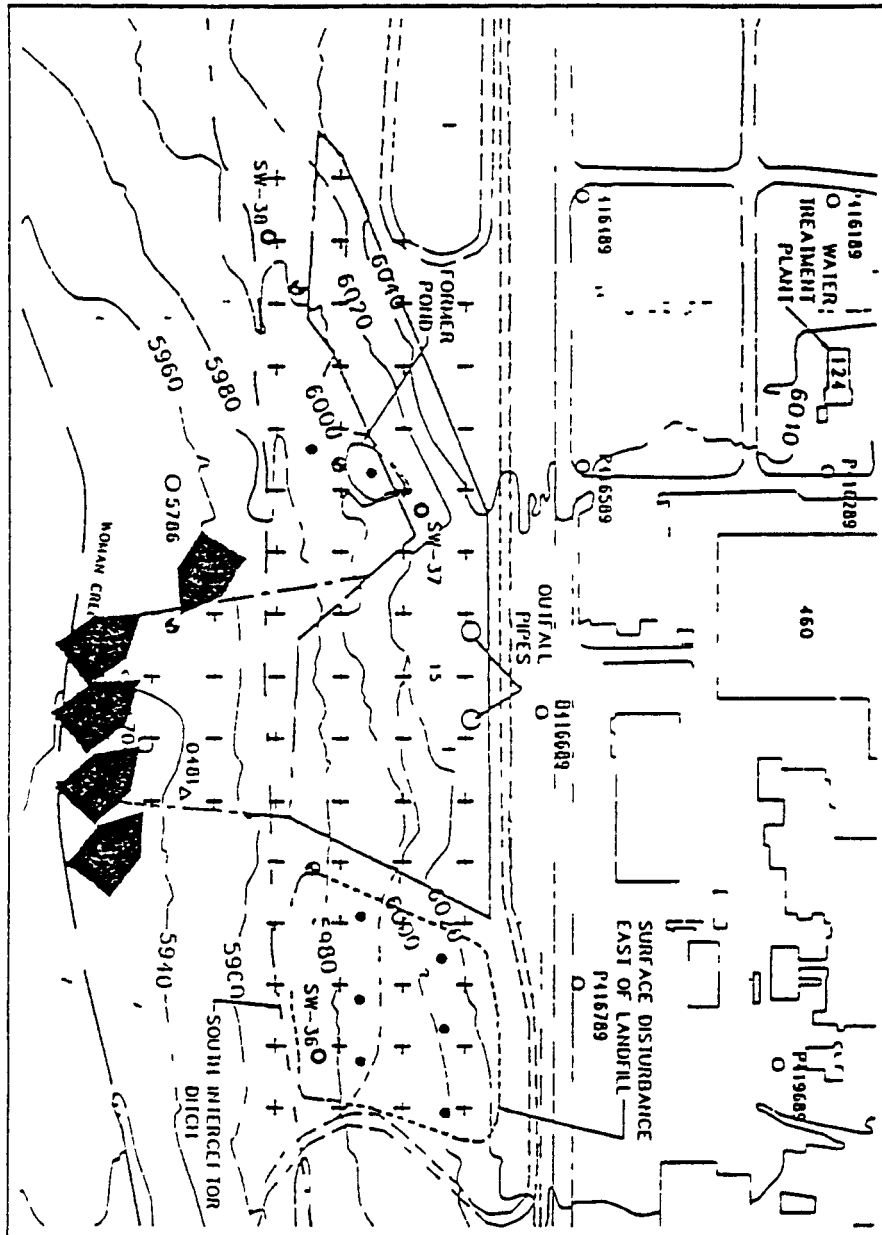


1" = 1000'
0' 50' 100'
CONTINUED INTERVAL - 20'

U.S. DEPARTMENT OF THE INTERIOR
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Bureau of Reclamation

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EXPLANATION

- WINDMILL HAZARDOUS SUBSTANCE SITE
- SW-1 O EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 O EXISTING ALLUVAL GRAVELLY SAND MONITORING WELL
- 0181 Δ PRE-1986 MONITORING WELL
- WINDMILL STREAM
- DIRT ROAD
- [124] ROCKY FLATS BDC NO
- PRELIMINARY EXTENSION OF DE LANDFILL BASED ON A SITE RECOMMISSION
- PROPOSED WELL LOCATION
- PROPOSED SOIL BORING LOCATION
- PROPOSED SOIL GAS SAMPLES
- *ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 5
PHASE 1 RI/RI WORK PLAN

PROPOSED SAMPLING AND
WELL LOCATIONS
MISS 115
ORIGINAL LANDFILL

Figure 3



(SEE FIGURE 7-2 [2 OF 2])

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OFFRABLE UNIT 5

**SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH**

[illegible]

5-23

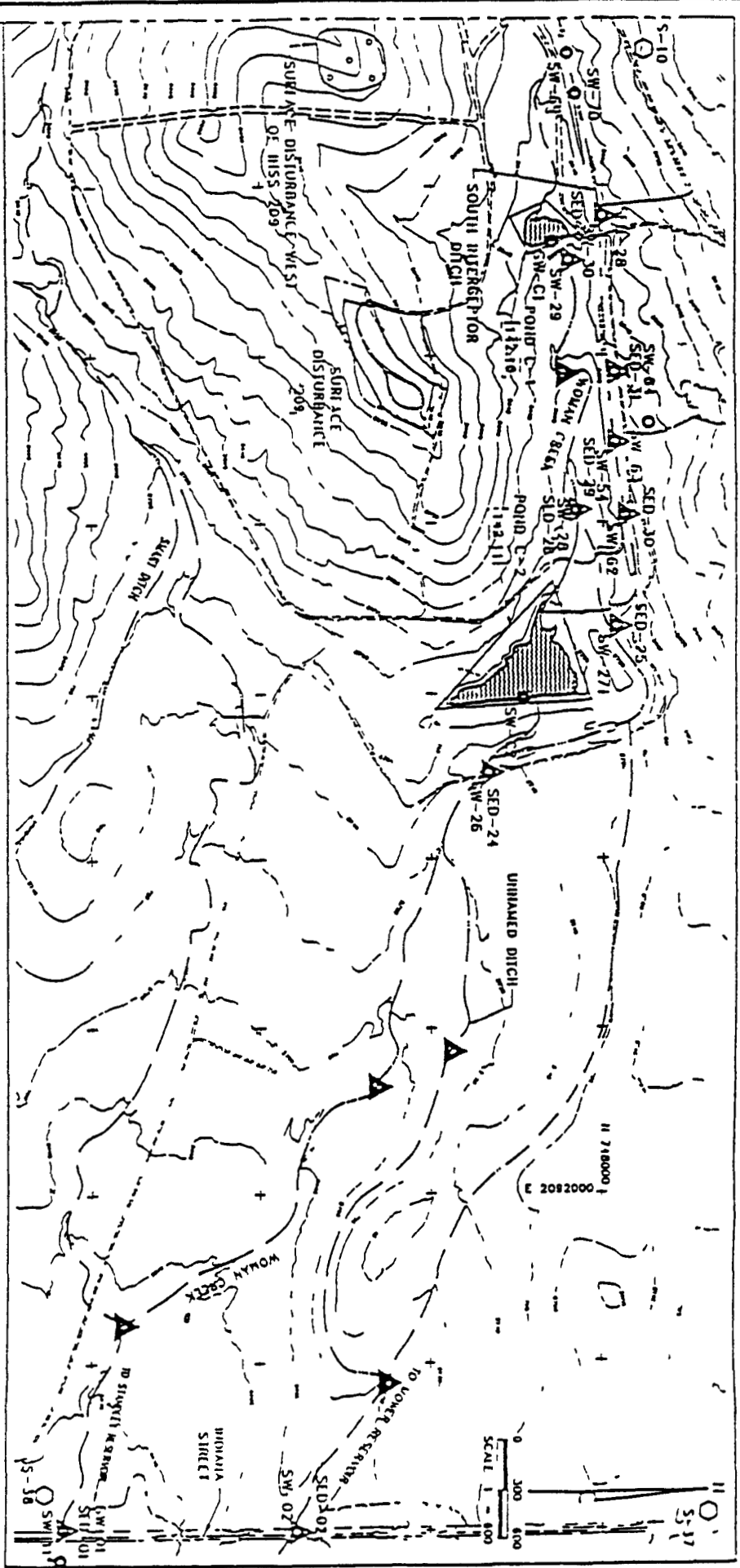
ΕΥΣΤΡΟΦΗ ΠΑΡΟΧΗΤΗ ΑΝΙΠΤΗΤΗ ΑΠΟ
ΜΕΤΑΒΟΛΙΣΜΟ ΤΗΝ ΕΠΙΣΤΗΜΗ

1990 CURRENT SURVEY BOUNDARY
AROUND OLD LAUNCH

Figure 4

REV AUGUST 1991
MARCH 1991

21/8



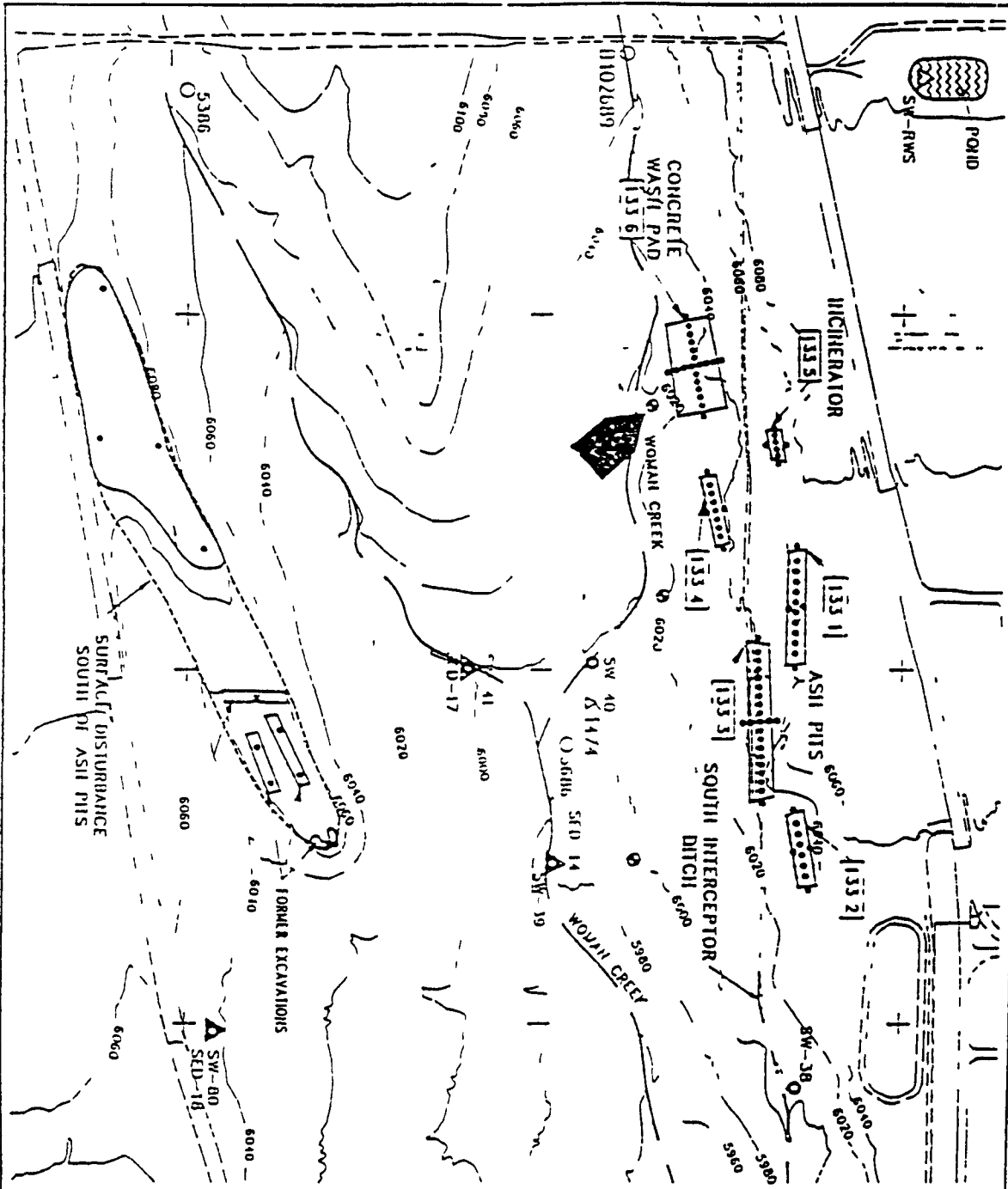
MATCHLINE
(SEE FIGURE 7-2 (1 OF 2))

EXPLANATION

- (113) HORIZONTAL HAZARDOUS SUBSTANCE SITE S-23
- SW 10 EXISTING SURFACE WATER LOCATION
- SED-1 EXISTING SEDIMENT SAMPLING LOCATION
- WATERWAY SHED
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECORD SURFACE
- ORIGINAL SURFACE CHANNEL HEAL
- EXISTING RADIOACTIVE MATERIAL AND HAZARDOUS WASTE LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden, Colorado
OPERABLE UNIT 3
PHASE 1 RI/RI WORK PLAN
SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH

11/12



EXPLANATION

- BROWNS HAZARDOUS SUBSTANCE SITE
- EXISTING SURFACE WATER SAMPLING LOCATION
- EXISTING MINERAL OROBORATOR WORKING WELL
- △ EXISTING SEDIMENT SAMPLING LOCATION
- △ THE 1986 MONITORING WELL
- PROPOSED SOIL BORING LOCATION
- PROPOSED WELL LOCATION
- × PROPOSED SURFACE SAMPLING LOCATION
- MINUTE LINE
- ===== DIRT ROAD

ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 3
PHASE I RTR WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
ASH PITS 1-4 HICHERATOR
CONCRETE WASH PAD (MISS 133 1 6)
AND ADDITIONAL SURFACE DISTURBANCE

DRAFT FOR COMMENTS AND DISCUSSION ONLY

100 200
SCALE 1" = 200'

EXPLANATION

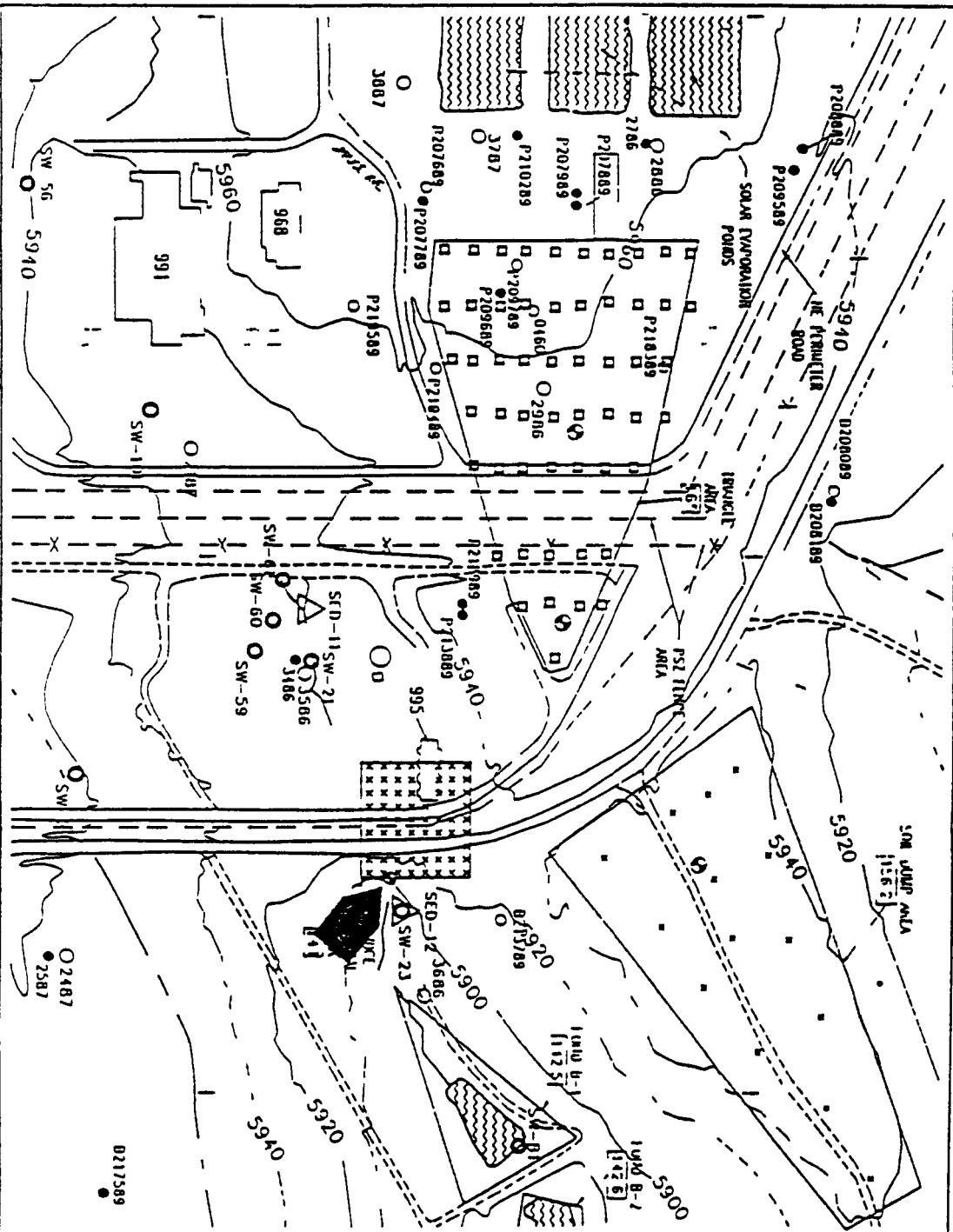
- [11'] REMEDIATION HAZARDOUS SUBSTANCE SITE
- SW-10 EXISTING SURFACE WATER SAMPLING LOCATION
- 5785 EXISTING ALLUVIAL CHANNEL REMEDIATION MONITORING WELL
- SW-12 EXISTING SUBURBAN SAMPLING LOCATION
- 3087 EXISTING BEDROCK CIRCUMFERENTIAL MONITORING WELL
- ===== DIRT ROAD
- INTERMITTENT STREAM
- [Hatched Box] ROCKY FLATS BLDG NO
- [Square Box] PROPOSED SOL GAS SMELT LOCATION¹
- [Circle with Dot] PROPOSED WELL LOCATION¹
- [Star] PROPOSED SURFACE SAMPLING LOCATION¹
- [Triangle] PROPOSED BORING AND SURFACE SAMPLING LOCATION¹

¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERATE UNIT &
PHASE I RI/RI WORK PLAN

PROPOSED SAMPLING AND
WELL LOCATIONS
MISS 141 SLUDGE DISPERSAL
MISS 165 TRIANGLE AREA
MISS 1562 SOIL DUMP AREA



DRAFT
FOR COMMENTS AND
DISCUSSION ONLY

0 200 400
SCALE 1" = 100'

EXPLANATION

- (11-1) PROPOSED HAZARDOUS SUBSTANCE SITE
- SW-1 O EXISTING SURFACE WATER SAMPLING LOCATION
- 3785 O EXISTING ALLUVIAL CHANNEL/PALEOCHANNEL MUD
- SED-17 Δ EXISTING SEDIMENT SAMPLING LOCATION
- 3087 ● EXISTING BEDROCK CHRONOMETER MONITORING WELL
- 01 B1 ▲ EXISTING PRE-1986 WELL
- INTERMITTENT STREAM
- DIRT ROAD
- PROPOSED WELL LOCATION¹
- Δ PROPOSED SEDIMENT SAMPLE LOCATION¹
- ① PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOTECHNICAL CHARACTERIZATION PROGRAM¹; these wells are shown in figure 11

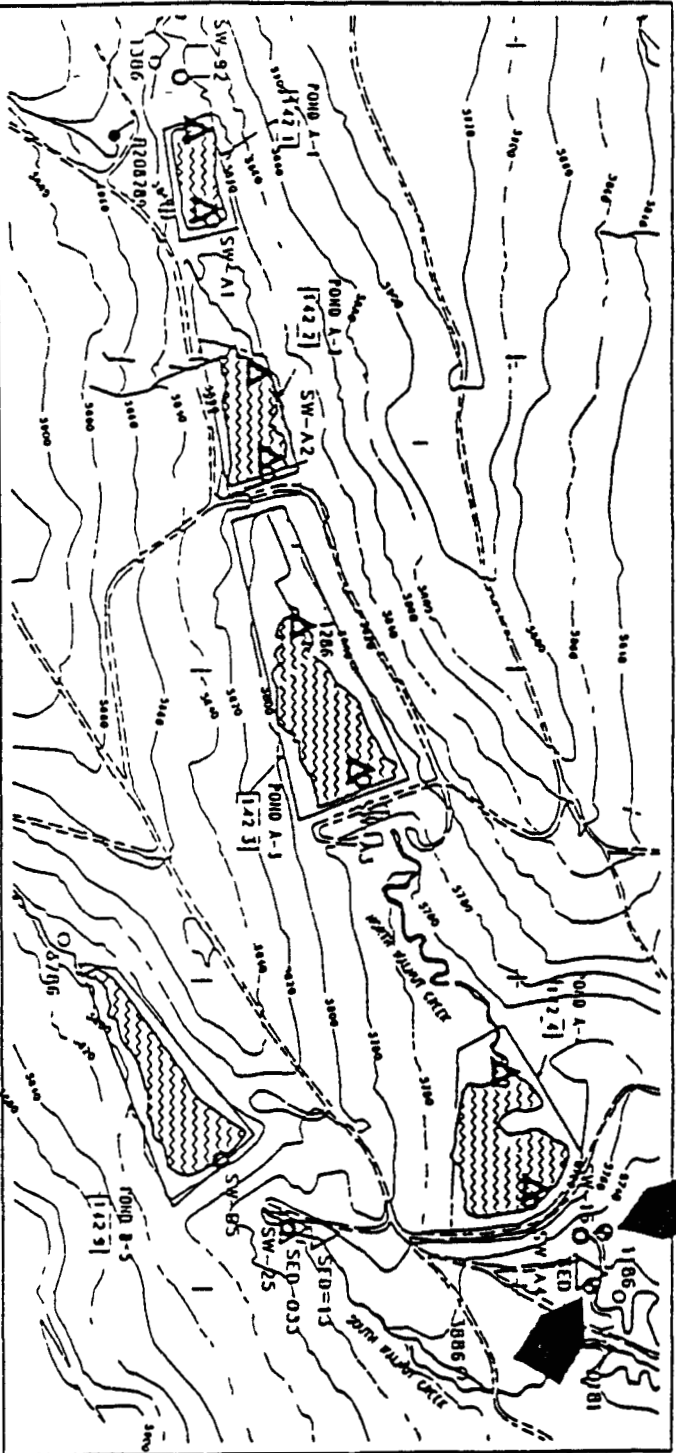
¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

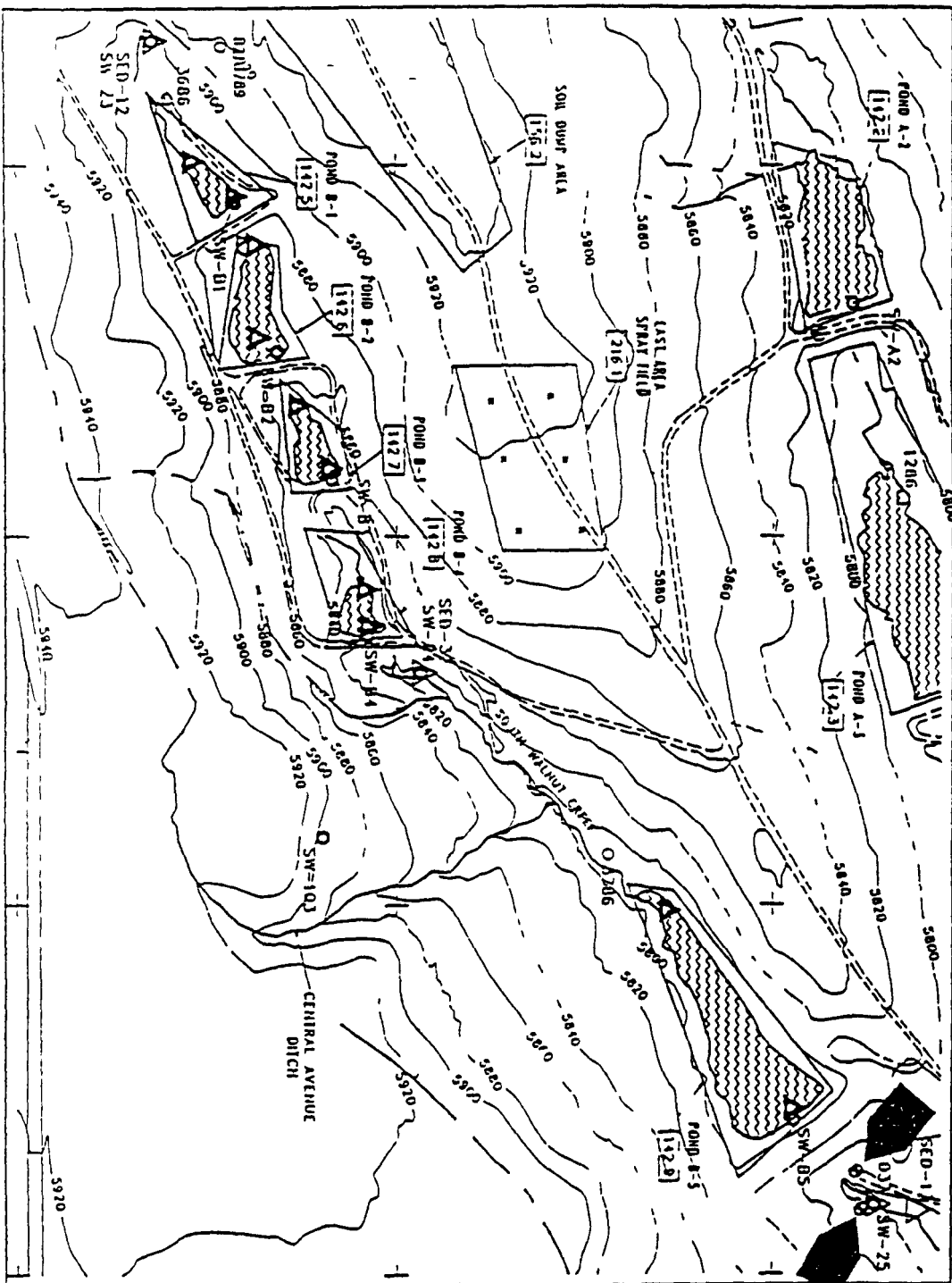
OPERABLE UNIT 5
PHASE 1 RI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
HHS 142 I-4
A-SERIES DETENTION PONDS
ALONG NORTH WALHUT CREEK

Figure 9 APRIL 1991



12/17



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0 150 300
SCALE 1" = 300'

EXPLANATION

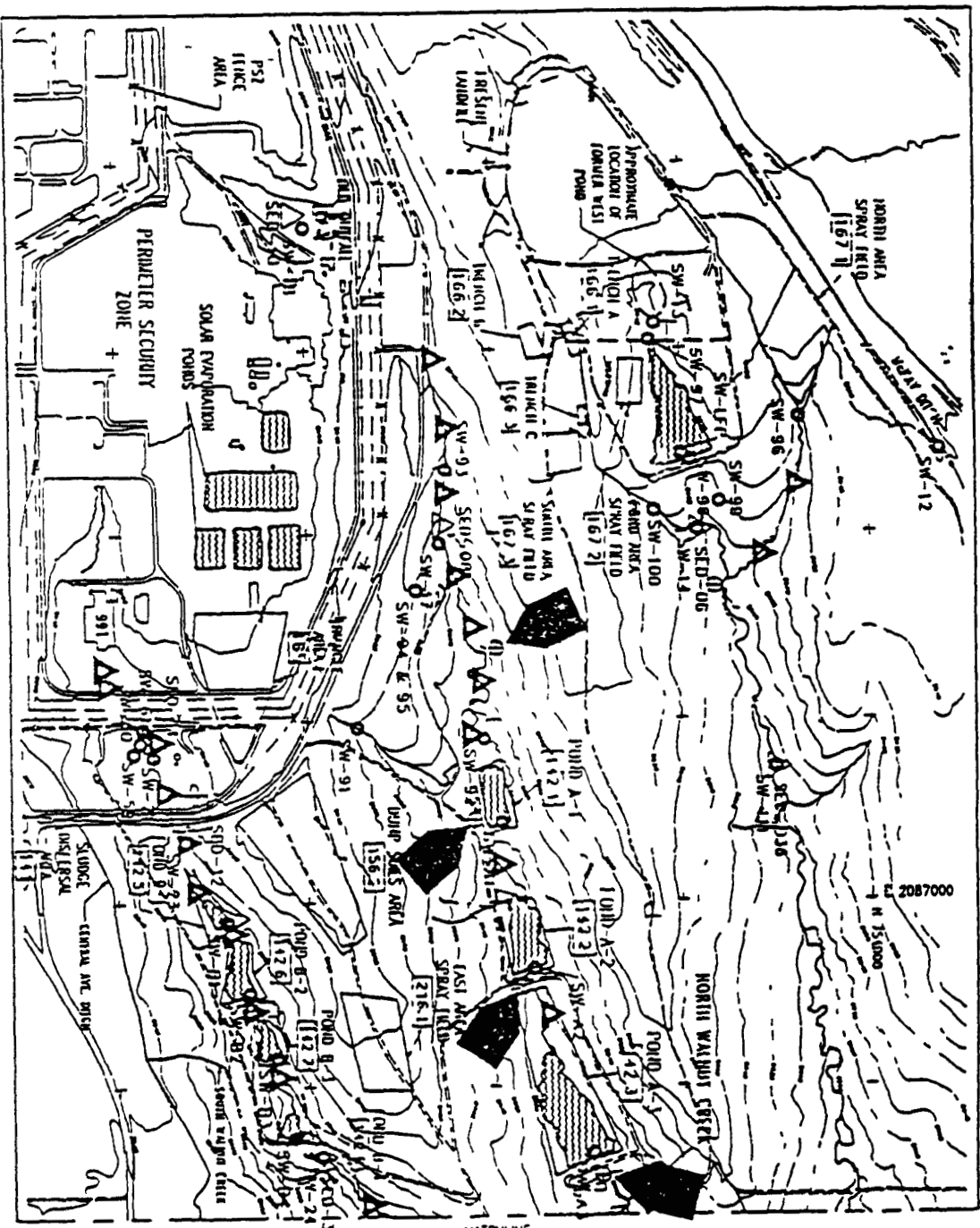
- 11-1 BIOHAZARDOUS SUBSTANCE SITE
- SW-10 EXISTING SURFACE WATER SAMPLING LOCATION
- 5786 O EXISTING ALTERNATE GROUNDWATER MONITORING WELL
- SED-17 EXISTING SEDIMENT SAMPLING LOCATION
- BIOHAZARDOUS STREAM
- DRI ROAD
- ROCKY FLATS BLDG NO
- PROPOSED WELL LOCATION
- PROPOSED BORING AND SURFACE SAMPLING LOCATION
- PROPOSED SEDIMENT SAMPLING LOCATION
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM
- ALL PROPOSED LOCATIONS ARE APPROXIMATE
- THREE OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM

U.S. DEPARTMENT OF ENERGY
Rocky Mountain Plant Golden Colorado

OPERABLE UNIT 6
PHASE 1 RI/RI WORK PLAN

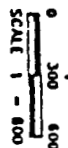
PROPOSED SAMPLING & WELL LOCATIONS
HHSs 1425-9,
B-SERIES DETENTION PONDS
ALONG SOUTH WALKER CREEK
HHS 2161 EAST AREA SPRAY FIELD

21/1



ATCHLINE
(SEE FIGURE 7-4 (2 OF 2))

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FOR COMMENTS AND
DISCUSSION ONLY



EXPLANATION

- [1-1] BROADBAND HAZARDOUS SUBSTANCE SITE (HSS) IN OPERABLE UNIT 6
- [1-1] HSS REFERENCE NUMBER
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- SW-17 EXISTING STREAM SAMPLING LOCATION
- PERIMETER SECURITY ZONE
- ==== DIRT ROAD
- ▲ PROPOSED LOCATIONS FOR SEDIMENT SAMPLING¹
- ⊙ PROPOSED BROADBAND WELL LOCATIONS FOR SITE WIDE GEOLOGICAL CHARACTERIZATION PROGRAM¹

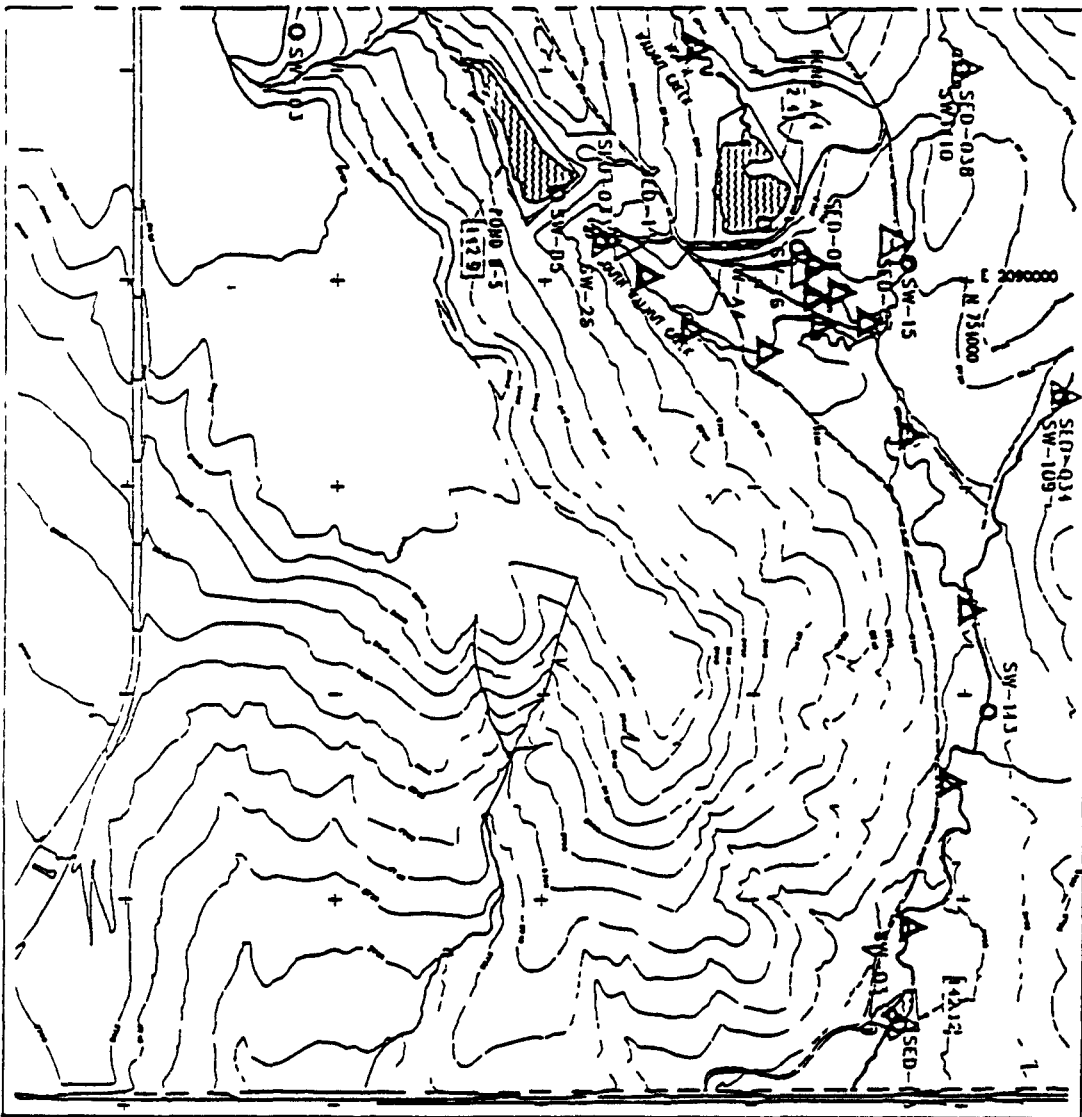
¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 6
PHASE I RI/RI WORK PLAN

SEDIMENT SAMPLING SITES AND
SITE-WIDE PROGRAM BEDROCK WELLS
ON NORTH AND SOUTH
WALHUT CREEKS

MATCHLINE
(SEE FIGURE 7-4 [2 OF 2])



DRAFT
FOR COMMENTS AND
DISCUSSION ONLY

0 200 400
SCALE 1" = 400'

EXPLANATION

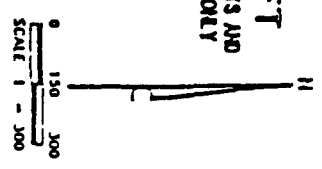
- MINOR HAZARDOUS SUBSTANCE SITE (HSS) IN OPERABLE UNIT 6
- BISS REFERENCE NUMBER
- CASING SURFACE WATER SAMPLING LOCATION
- EXISTING SEDIMENT SAMPLING LOCATION
- DIRT ROAD
- PROPOSED LOCATIONS FOR SEDIMENT SAMPLING¹

¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado
OPERABLE UNIT 6
PHASE I RI/RI WORK PLAN
SEDIMENT SAMPLING SITES AND
SITE-WIDE PROGRAM BEDROCK WELLS
ON NORTH AND SOUTH
WATNUT CREEKS

Preliminary information from the U S Army Corps of Engineers shows no flood plain for the drainageways on this map

DRAFT
FOR COMMENTS AND
DISCUSSION ONLY



EXPLANATION

- ```

[115]
SW-1 O PORTHOLE NEARBOOTS SUBSTANT STIR
3786 O EXISTING SURFACE WATER SAMPLING LOCAR
SCO-17 Δ EXISTING ALLUVIAL CHANNELS NEARBOOTS WORKBOOTS MI
3087 ● EXISTING SEDIMENT SAMPLING LOCAR NW
EXISTING REEFICE CHANNELS NEARBOOTS WORKBOOTS MI
- - - - - BITUMEN/ITMI STRUCAL
- - - - - DIRT ROAD
● PROPOSED SOIL BORING LOCAR NW1
● PROPOSED WELL LOCAR NW1
● PROPOSED BORING AND SURFACE SAMPLING LOCAR NW1
● PROPOSED ELECTROMAGNETIC SURVEY LOCAR NW1

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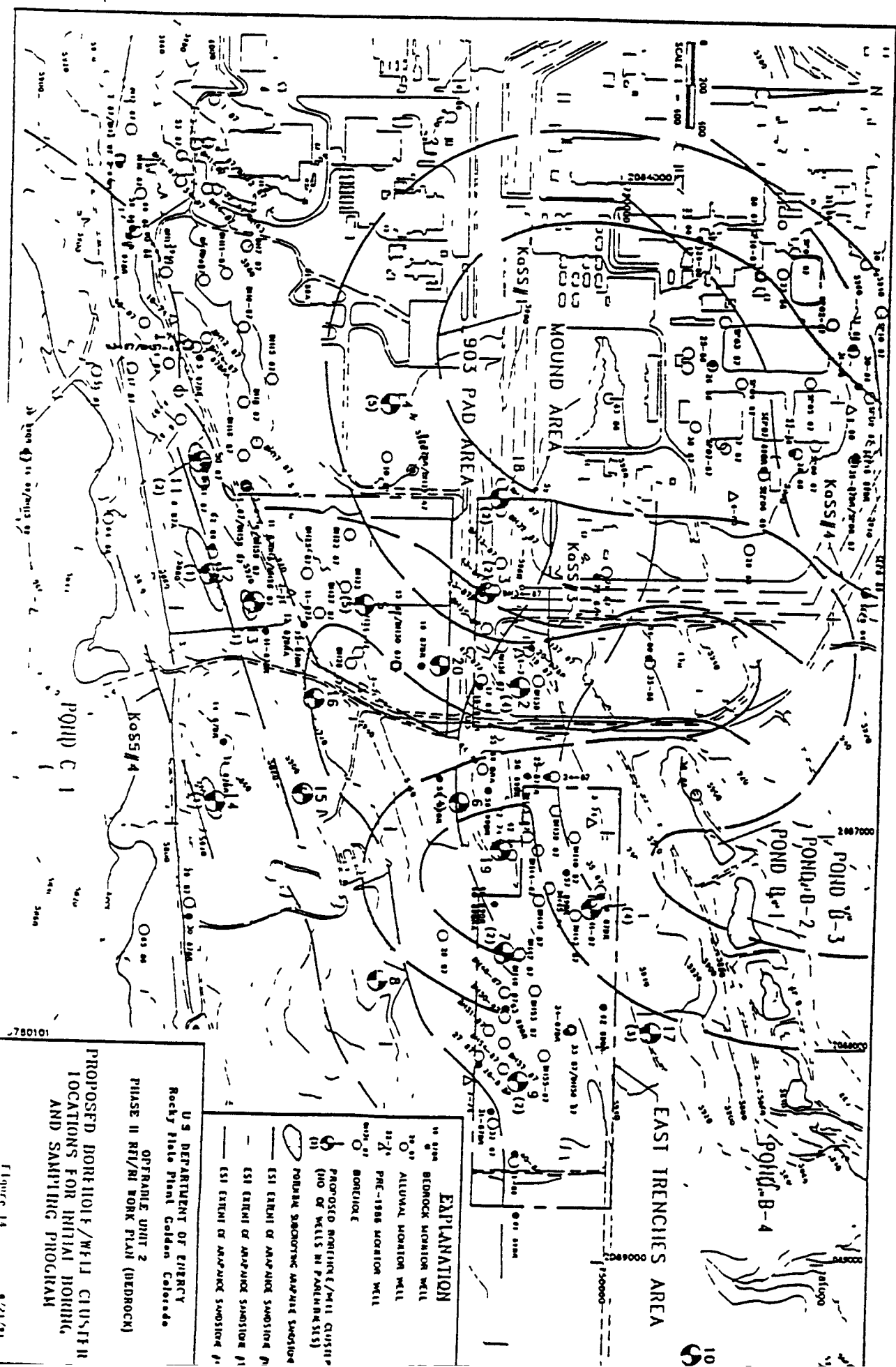
ALL PROPOSED LOCATIONS ARE APPROXIMATE

U S DEPARTMENT OF ENERGY  
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 6  
PHASE I RI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATION  
HSSs 166 1-3, TRENCHES A, B, &  
HSSs 167 1-3 NORTH AREA,  
POND AREA AND SOUTH AREA





PROPOSED BORTHOFF/WFJ CLUSTER  
LOCATIONS FOR INITIAL BORING,  
AND SAMPLING PROGRAM